

The Massachusetts HIV/AIDS Epidemic at a Glance – Detailed Data Tables and Technical Notes:

Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases who were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2014, this resulted in the removal of 4,135 HIV/AIDS cases, of which 973 have died and 3,162 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location of diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS Surveillance System. The cases are assigned to the state that reports the earliest date of AIDS diagnosis if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that all previous HIV/AIDS fact sheets, data reports and presentations include cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 40% of recent female HIV diagnoses are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

Estimated total number of people living with HIV/AIDS:

The CDC estimates that 18.1% of HIV infected persons nationwide do not know they are infected¹ (previous editions of the Epidemiologic Profile cited that 21% of HIV-infected persons did not know they were infected). Applying the national estimate to the number of people living with HIV/AIDS in Massachusetts reported to the HIV/AIDS Surveillance Program (N = 19,165 as of December 31, 2013), and adjusting for completeness of reporting, would yield an estimated 4,983 people who are infected with HIV and do not know it, and 3,382 who know their status but have not been reported. Therefore, the estimated total number of people currently living with HIV/AIDS in Massachusetts, including people known to the surveillance system, as well as those yet to be identified, and those who were first reported in another state is in the range of 29,000–31,000 people.

Caveats of the data

While trends in diagnosis of HIV infection are our best indicator for those who are most at risk of HIV infection, HIV surveillance reflects the incidence of diagnoses among people who are in care and not the actual incidence of new infections. Like AIDS diagnoses, HIV infection diagnoses are not a direct measure of incidence of infection itself. People may be living with HIV infection for many years prior to being tested and seeking care, at which point the case is considered a “diagnosis” and reported to the MDPH HIV/AIDS Surveillance Program. Furthermore, as with early data for AIDS cases, the data from the first few years of a new reporting system can be unstable, and caution should be used in interpretation. During the time a reporting system is in its infancy, there is a greater likelihood that fluctuations in data are attributable to reporting patterns and clinician education efforts rather than actual changes in disease incidence.

One must consider the effects of reporting lag on reported HIV infection diagnoses in the most recent years. Although Massachusetts regulations require providers to submit HIV case reports in a timely fashion, many 2012 HIV infection diagnoses will be reported to the surveillance program after the release of this Epidemiologic Profile. Thus, the 2012 data presented in this report may represent an undercount. Previous analyses of Massachusetts HIV/AIDS case data have suggested that the distribution of HIV infection diagnoses by race/ethnicity, gender and exposure mode for cases reported more than 6 months after diagnosis was not substantially different than the distribution of HIV cases reported within 6 months. Caution should be exercised when considering changes in HIV diagnosis trends for 2012.

¹ Centers for Disease Control and Prevention. Monitoring selected national HIV prevention and care objectives by using HIV surveillance data—United States and 6 U.S. dependent areas—2010. *HIV Surveillance Supplemental Report 2012*;17(No. 3, part A). Published June 2012.

Table 1. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2000–2012, Massachusetts³

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
2000	12,578	353	1,183
2001	13,136	416	974
2002	13,824	368	1,056
2003	14,391	391	958
2004	14,952	353	914
2005	15,517	332	897
2006	16,007	324	814
2007	16,461	286	740
2008	16,909	282	730
2009	17,313	288	692
2010	17,742	260	689
2011	18,212	212	682
2012	18,698	208	694

¹ Number of people living with HIV/AIDS on 12/31 of each year

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis from a baseline year of 2000 (one year after HIV infection reporting began) to the most recently available year.

³ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

Table 2. Total number of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2013: Massachusetts

	N	%
People Living with HIV/AIDS	19,165	59%
<i>People Living with HIV/AIDS and First Diagnosed in Another U.S. State</i>	3,162	-- ²
People Reported with HIV or AIDS Who Are Deceased	13,180	41%
Total Number of People Reported with HIV Infection or AIDS²	32,345	100%

¹ Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts; therefore people living with HIV/AIDS and first diagnosed in another U.S. state are not included in the total number of people reported with HIV Infection or AIDS.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

Who is most at risk of HIV infection and how has this changed over time?

Table 3. People diagnosed with HIV infection by gender and year of diagnosis: Massachusetts¹ 2003–2012²

	Male		Female		Total
	N	%	N	%	
2003	649	68%	309	32%	958
2004	645	71%	269	29%	914
2005	656	73%	241	27%	897
2006	585	72%	229	28%	814
2007	532	72%	208	28%	740
2008	534	73%	196	27%	730
2009	529	76%	163	24%	692
2010	498	72%	191	28%	689
2011	488	72%	194	28%	682
2012	517	74%	177	26%	694

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 4. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts¹, 2003–2012²

	White (NH)		Black (NH)		Hispanic/ Latino		API		Total ³
	N	%	N	%	N	%	N	%	N
2003	382	40%	336	35%	222	23%	12	1%	958
2004	346	38%	305	33%	242	26%	15	2%	914
2005	358	40%	304	34%	217	24%	16	2%	897
2006	339	42%	253	31%	198	24%	19	2%	814
2007	314	42%	234	32%	173	23%	16	2%	740
2008	290	40%	243	33%	163	22%	27	4%	730
2009	279	40%	226	33%	165	24%	19	3%	692
2010	277	40%	214	31%	174	25%	21	3%	689
2011	235	34%	240	35%	169	25%	26	4%	682
2012	265	38%	211	30%	190	27%	19	3%	694

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 5. Males diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts¹, 2003–2012²

	White (NH)		Black (NH)		Hispanic/ Latino		API		Total ³
	N	%	N	%	N	%	N	%	N
2003	322	50%	176	27%	139	21%	8	1%	649
2004	303	47%	167	26%	160	25%	11	2%	645
2005	320	49%	170	26%	152	23%	14	2%	656
2006	292	50%	131	22%	142	24%	15	3%	585
2007	259	49%	138	26%	123	23%	10	2%	532
2008	260	49%	134	25%	110	21%	23	4%	534
2009	245	46%	143	27%	123	23%	16	3%	529
2010	242	49%	112	22%	126	25%	17	3%	498
2011	197	40%	136	28%	125	26%	21	4%	488
2012	235	45%	114	22%	147	28%	16	3%	517

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity (NH) = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native, Other/Und. = Other/Undetermined Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 6. Females diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts¹, 2003–2012²

	White (NH)		Black (NH)		Hispanic/ Latina		API		Total ³
	N	%	N	%	N	%	N	%	N
2003	60	19%	160	52%	83	27%	4	1%	309
2004	43	16%	138	51%	82	30%	4	1%	269
2005	38	16%	134	56%	65	27%	2	1%	241
2006	47	21%	122	53%	56	24%	4	2%	229
2007	55	26%	96	46%	50	24%	6	3%	208
2008	30	15%	109	56%	53	27%	4	2%	196
2009	34	21%	83	51%	42	26%	3	2%	163
2010	35	18%	102	53%	48	25%	4	2%	191
2011	38	20%	104	54%	44	23%	5	3%	194
2012	30	17%	97	55%	43	24%	3	2%	177

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity (NH) = Non-Hispanic, API = Asian/Pacific Islander, AI/AN = American Indian/Alaskan Native, Other/Und. = Other/Undetermined Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 7. People diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts¹, 2003–2012²

	MSM		IDU		MSM/ IDU		HTSX		Pres. HTSX ³		Undeter- mined ⁴		Total ⁵
	N	%	N	%	N	%	N	%	N	%	N	%	N
2003	318	33%	146	15%	32	3%	136	14%	129	13%	184	19%	958
2004	292	32%	146	16%	26	3%	137	15%	109	12%	193	21%	914
2005	351	39%	121	13%	22	2%	110	12%	100	11%	188	21%	897
2006	339	42%	96	12%	18	2%	101	12%	102	13%	152	19%	814
2007	292	39%	96	13%	22	3%	81	11%	82	11%	162	22%	740
2008	288	39%	70	10%	29	4%	93	13%	81	11%	163	22%	730
2009	310	45%	46	7%	18	3%	90	13%	64	9%	159	23%	692
2010	292	42%	67	10%	22	3%	84	12%	82	12%	136	20%	689
2011	272	40%	62	9%	19	3%	85	12%	80	12%	161	24%	682
2012	317	46%	43	6%	22	3%	59	9%	93	13%	156	22%	694

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁵ Totals include pediatric and blood/blood products exposure modes

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 8. Males diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts¹, 2003–2012²

	MSM		IDU		MSM/IDU		HTSX		Undetermined ³		Total ⁴
	N	%	N	%	N	%	N	%	N	%	N
2003	318	49%	94	14%	32	5%	45	7%	150	23%	649
2004	292	45%	100	16%	26	4%	48	7%	174	27%	645
2005	351	54%	89	14%	22	3%	36	5%	158	24%	656
2006	339	58%	49	8%	18	3%	42	7%	134	23%	585
2007	292	55%	58	11%	22	4%	27	5%	131	25%	532
2008	288	54%	44	8%	29	5%	29	5%	138	26%	534
2009	310	59%	32	6%	18	3%	27	5%	140	26%	529
2010	292	59%	45	9%	22	4%	28	6%	108	22%	498
2011	272	56%	40	8%	19	4%	23	5%	133	27%	488
2012	317	61%	21	4%	22	4%	27	5%	127	25%	517

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁴ Totals include pediatric and blood/blood products exposure modes.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex
Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 9. Females diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts¹, 2003–2012²

	IDU		HTSX		Pres. HTSX ³		Undetermined ⁴		Total ⁵
	N	%	N	%	N	%	N	%	N
2003	52	17%	91	29%	129	42%	34	11%	309
2004	46	17%	89	33%	109	41%	19	7%	269
2005	32	13%	74	31%	100	41%	30	12%	241
2006	47	21%	59	26%	102	45%	18	8%	229
2007	38	18%	54	26%	82	39%	31	15%	208
2008	26	13%	64	33%	81	41%	25	13%	196
2009	14	9%	63	39%	64	39%	19	12%	163
2010	22	12%	56	29%	82	43%	28	15%	191
2011	22	11%	62	32%	80	41%	28	14%	194
2012	22	12%	32	18%	93	53%	29	16%	177

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

⁵ Totals include pediatric and blood/blood products exposure modes

IDU = Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 10. People diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts¹, 2003–2012²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	
2003	581	61%	81	8%	296	31%	958
2004	548	60%	99	11%	267	29%	914
2005	540	60%	82	9%	275	31%	897
2006	503	62%	58	7%	253	31%	814
2007	458	62%	56	8%	226	31%	740
2008	443	61%	67	9%	220	30%	730
2009	433	63%	48	7%	211	30%	692
2010	431	63%	43	6%	215	31%	689
2011	407	60%	41	6%	234	34%	682
2012	391	56%	62	9%	241	35%	694

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 11. Males diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts¹, 2003–2012²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	
2003	451	69%	41	6%	157	24%	649
2004	439	68%	64	10%	142	22%	645
2005	434	66%	58	9%	164	25%	656
2006	391	67%	40	7%	154	26%	585
2007	358	67%	38	7%	136	26%	532
2008	364	68%	42	8%	128	24%	534
2009	362	68%	31	6%	136	26%	529
2010	356	71%	34	7%	108	22%	498
2011	320	66%	30	6%	138	28%	488
2012	320	62%	49	9%	148	29%	517

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 12. *Females* diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts¹ 2003–2012²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	
2003	130	42%	40	13%	139	45%	309
2004	109	41%	35	13%	125	46%	269
2005	106	44%	24	10%	111	46%	241
2006	112	49%	18	8%	99	43%	229
2007	100	48%	18	9%	90	43%	208
2008	79	40%	25	13%	92	47%	196
2009	71	44%	17	10%	75	46%	163
2010	75	39%	9	5%	107	56%	191
2011	87	45%	11	6%	96	49%	194
2012	71	40%	13	7%	93	53%	177

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 1% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 13. People diagnosed with HIV infection by race/ethnicity¹ and place of birth: Massachusetts², 2010–2012³

Race/Ethnicity:	US		Puerto Rico/ US Dependency ⁴		Non-US	
	N	%	N	%	N	%
White (NH)	712	92%	-- ⁵	<1%	64	8%
Black (NH)	300	45%	-- ⁵	<1%	364	55%
Hispanic/Latino	180	34%	144	27%	209	39%
API	20	30%	0	0%	46	70%
Total	1,229	60%	--⁵	7%	690	33%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Data for American Indian/Alaska Native and Other/Unknown race/ethnicity are not presented due to small numbers.

³ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

⁴ Ninety-eight percent of people diagnosed with HIV infection from 2010–2012 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

⁵ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 14. People diagnosed with HIV infection by gender and race/ethnicity: Massachusetts¹, 2010–2012²

Race/Ethnicity:	Male		Female		State Total	
	N	%	N	%	N	%
White (NH)	674	45%	103	18%	777	38%
Black (NH)	362	24%	303	54%	665	32%
Hispanic/Latino	398	26%	135	24%	533	26%
API	54	4%	12	2%	66	3%
Other/Unknown	15	1%	9	2%	24	1%
Total	1,503	100%	562	100%	2,065	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding). Data as of 1/1/14

Table 15. People diagnosed with HIV infection by gender and exposure mode: Massachusetts¹, 2010–2012²

Exposure Mode:	Male		Female		State Total	
	N	%	N	%	N	%
Male-to-male sex (MSM)	881	59%	N/A	N/A	881	43%
Injection drug use (IDU)	106	7%	66	12%	172	8%
MSM/IDU	63	4%	N/A	N/A	63	3%
Heterosexual sex	78	5%	150	27%	228	11%
Other	7	<1%	6	1%	13	1%
Total undetermined/other	368	24%	340	60%	708	34%
- Pres. HTSX ³	N/A	N/A	255	45%	255	12%
- Undetermined ⁴	368	24%	85	15%	453	22%
Total	1,503	100%	562	100%	2,065	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

Pres. HTSX = Presumed Heterosexual Sex; N/A = Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Who is currently living with HIV/AIDS in Massachusetts?

Table 16. People living with HIV/AIDS on December 31, 2013 by gender, race/ethnicity, place of birth and health service region: Massachusetts¹

People Living with HIV/AIDS on 12/31/13		
Gender:	N	%
Male	13,680	71%
Female	5,485	29%
Race/Ethnicity:	N	%
White, non-Hispanic	8,297	43%
Black, non-Hispanic	5,745	30%
Hispanic/Latino	4,665	24%
Asian/Pacific Islander	330	2%
Other/Unknown	128	1%
Place of Birth:	N	%
US	12,522	65%
Puerto Rico/US Dependency ²	1,949	10%
Non-US	4,694	24%
Health Service Region ³ :	N	%
Boston HSR	6,079	32%
Central HSR	1,632	9%
Metro West HSR	2,799	15%
Northeast HSR	3,039	16%
Southeast HSR	2,616	14%
Western HSR	2,069	11%
Prison ⁴	924	5%
Total⁵	19,165	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Ninety-eight percent of people living with HIV/AIDS who were born in a US Dependency were born in Puerto Rico, <1% were born in the US Virgin Islands, <1% were born in Guam and 2% were born in an unknown dependency.

³ Reflects the health service region of a person's residence at the time of report (not necessarily current residence); See Epidemiologic Profile General Appendices, Health Service Region Maps, available at http://www.mass.gov/dph/aids/research/profile2005/app5_hrs_maps.pdf for configuration of health service regions

⁴ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons are not an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. The prisons category represents persons who were diagnosed with HIV/AIDS while in a correctional facility. These data do not reflect current incarceration status.

⁵ Total includes seven people living with HIV/AIDS with unknown HSR; Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 17. People living with HIV/AIDS by exposure mode: Massachusetts¹

People Living with HIV/AIDS on 12/31/13		
Exposure Mode:	N	%
Male-to-male sex (MSM)	7,137	37%
Injection drug use (IDU)	3,683	19%
MSM/IDU	661	3%
Receipt of blood/blood products/other	67	<1%
Pediatric	339	2%
Total heterosexual sex (HTSX)	2,720	14%
• HTSX w/ an injection drug user	889	5%
• HTSX w/ bisexual male (females only)	44	0%
• HTSX w/ a person w/ HIV or AIDS	1,742	9%
• Other HTSX ²	45	0%
Total undetermined/other	4,558	24%
• Presumed heterosexual sex ³	1,714	9%
• Undetermined/other ⁴	2,844	15%
Total	19,165	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes heterosexual sex with a person who received blood/blood products.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, occupational exposure, and those lost to follow-up.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Note: The category of “presumed heterosexual” is used in Massachusetts to re-assign females who are reported with an exposure of heterosexual sex, but only with a partner of unknown HIV status or behavioral risk. Massachusetts uses the category of presumed heterosexual to distinguish these female cases from other undetermined cases about which we know less. Prior to January 1, 2011, the presumed heterosexual category was also used to report HIV data in males. The rationale for the application of the presumed heterosexual exposure mode category to females only has been addressed in the MDPH OHA report “Intersecting Risks: HIV Infection among Heterosexual Women and Men in Massachusetts.” (2010)

http://www.mass.gov/Eeohhs2/docs/dph/aids/intersecting_risks.pdf. Nationally, the Centers for Disease Control and Prevention categorize “presumed heterosexual” cases as “no identified risk” (NIR). As such, comparisons of the presumed heterosexual category cannot be made to national data. Caution should be used in interpreting data for presumed heterosexual, as it is still not clear what the exposure risk was for females in this category. Although a person may not report other risk behaviors, such as injection drug use to a health care provider, it does not exclude the possibility that an individual has experienced these other risks. There are many barriers to disclosing HIV risk behaviors in the health care setting such as a limited patient-provider relationship or stigma.

Table 18. People living with HIV/AIDS on December 31, 2013 by gender and race/ethnicity: Massachusetts¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White, non-Hispanic	6,927	51%	1,370	25%
Black, non-Hispanic	3,234	24%	2,511	46%
Hispanic/Latino	3,179	23%	1,486	27%
Asian/Pacific Islander	253	2%	77	1%
Other/Unknown	87	1%	41	1%
Total	13,680	100%	5,485	100%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Who is experiencing differential impact from HIV/AIDS?

Explanation of age adjusted rates

A “rate” of a disease per 100,000 population is a useful way to compare groups that have substantially different population sizes rather than relying on the raw number of cases. For example, the number of people living with HIV/AIDS on December 31, 2013 who are Hispanic/Latino, is 4,665 whereas the number of people living with HIV/AIDS who are white (non-Hispanic) is 8,297. Although the *number* of people living with HIV/AIDS who are Hispanic/Latino in Massachusetts is smaller than the number of people living with HIV/AIDS who are white (non-Hispanic), we also need to consider that there are far fewer people of Hispanic/Latino heritage living in Massachusetts than white (non-Hispanic) individuals. Hispanic/Latino individuals represent 10% of the Massachusetts population compared to white (non-Hispanic) individuals who represent 78% of the population². If HIV/AIDS had the same impact on the Hispanic/Latino population of the state as on the white (non-Hispanic), then there should be eight times as many cases in white (non-Hispanic) individuals, but there are less than twice as many. By calculating a rate which takes into consideration the differences in the population size, it is evident that the number of people living with HIV/AIDS for every 100,000 Hispanic/Latino individuals in Massachusetts is much higher than the rate for every 100,000 white (non-Hispanic) individuals. This is called a “crude rate” and is calculated by dividing the number of people living with HIV/AIDS by the population of interest (the total number of Hispanic/Latino individuals in Massachusetts, for example) and multiplying by 100,000. (See example 1.A below).

² The denominators for prevalence calculations are based on year 2010 population estimates from the MDPH Bureau of Health Information, Statistics, Research and Evaluation

Example 1.A: Calculation of crude HIV/AIDS prevalence rate for white (non-Hispanic) individuals, Massachusetts (161.7 per 100,000)

$$\begin{aligned}\text{Crude HIV/AIDS prevalence rate for white (non-Hispanic) individuals} &= (\text{number of white (non-Hispanic) individuals living with HIV/AIDS} \div \text{population size of white (non-Hispanic) individuals}) \times 100,000 \\ &= (8,297 / 5,132,633) \times 100,000 \\ &= (.0001616519) \times 100,000 \\ &= \mathbf{161.7}\end{aligned}$$

However, sometimes, in addition to the population size being different, the age composition of the populations is different. In Massachusetts, black (non-Hispanic) and Hispanic/Latino populations are generally younger than white (non-Hispanic). The median age of black (non-Hispanic) people (29.7 years) and Hispanic/Latino people (24.5 years) is younger than that of white (non-Hispanic) people (38.8 years). Therefore, it is necessary to “age-adjust” the HIV/AIDS prevalence rate to get a true comparison of the impact of the disease across racial/ethnic groups without an effect from the differences in age composition. Age-adjustment of rates minimizes the distortion created by differences in age composition.

Age-adjusted rates are calculated by weighting the age-specific rates for a given population by the age distribution of a standard population. The weighted age-specific rates are then added to produce the adjusted rate for all ages combined. (See example 1.B below).

Example 1.B: Calculation of age-adjusted HIV/AIDS prevalence rate for white (non-Hispanic) individuals, Massachusetts (137.5 per 100,000)

<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>
<i>Age group (in years)</i>	<i># of prevalent HIV/AIDS cases</i>	<i>Population (2010)</i>	<i>2000 US standard population weight</i>	<i>Age-adjusted rate ((B÷CxD)×100,000))</i>
<1	0	48,010	0.013818	0.00
1-4	0	200,452	0.055317	0.00
5-14	4	571,967	0.145565	0.10
15-24	89	677,899	0.138646	1.82
25-34	500	603,245	0.135573	11.24
35-44	1133	676,064	0.162613	27.25
45-54	3446	841,315	0.134834	55.23
55-64	2393	697,852	0.087247	29.92
65-74	625	403,518	0.066037	10.23
75-84	101	275,380	0.044842	1.64
85+ years	6	136,931	0.015508	0.07
Total	8,297	5,132,633	1.000000	137.5

To see the effect of age-distribution on prevalence rates see Table 6 below for a comparison of crude and age-adjusted rates by race/ethnicity.

Table 19. Crude and age-adjusted HIV/AIDS prevalence per 100,000 population¹ on December 31, 2013 by race/ethnicity and gender: Massachusetts²

State Total:	Crude rate per 100,000	Age-adjusted rate per 100,000
White, non-Hispanic	161.7	137.5
Black, non-Hispanic	1,383.0	1,416.4
Hispanic/Latino	743.2	959.3
Asian/Pacific Islander	91.8	94.1
Total prevalence	292.7	266.3
Males:	Crude rate per 100,000	Age-adjusted rate per 100,000
White, non-Hispanic	279.4	235.7
Black, non-Hispanic	1,611.9	1,694.7
Hispanic/Latino	1,031.8	1,409.4
Asian/Pacific Islander	147.0	150.8
Total prevalence among males	432.0	389.8
Females:	Crude rate per 100,000	Age-adjusted rate per 100,000
White, non-Hispanic	51.6	45.4
Black, non-Hispanic	1,169.2	1,181.8
Hispanic/Latina	465.0	573.9
Asian/Pacific Islander	41.1	42.5
Total prevalence among females	162.2	151.6

¹ The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 1/1/14

Table 3. Crude and age-adjusted rates of diagnosis of HIV infection per 100,000 population¹ by race/ethnicity and gender: Average annual rate 2010–2012², Massachusetts³

State total:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic)	5.0	5.1
Black (non-Hispanic)	53.4	52.7
Hispanic/Latino	28.3	29.8
Asian/Pacific Islander	6.1	5.4
Total rate	10.5	10.6
Males:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic) Males	9.1	9.0
Black (non-Hispanic) Males	60.1	59.3
Hispanic/Latino Males	43.1	45.3
Asian/Pacific Islander Males	10.5	9.2
Total rate among males	15.8	15.7
Females:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic) Females	1.3	1.4
Black (non-Hispanic) Females	47.0	46.5
Hispanic/Latina Females	14.1	15.4
Asian/Pacific Islander Females	2.1	1.8
Total rate among females	5.5	5.6

¹The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program; Data as of 1/1/14

Who is being concurrently diagnosed?

“Concurrent diagnosis”, both HIV infection and AIDS diagnosed within two months, likely occurs in people who have been infected for some time prior to learning of their status and are therefore late to access HIV-related care and treatment. As such, concurrently diagnosed individuals may not experience the full benefits of these services, including improved health, better quality of life, longer survival and reduction in the likelihood of transmitting HIV to others.

Table 20. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Massachusetts¹, 2003–2012²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2003	322	958	34%
2004	331	914	36%
2005	322	897	36%
2006	288	814	35%
2007	263	740	36%
2008	220	730	30%
2009	205	692	30%
2010	223	689	32%
2011	233	682	34%
2012	206	694	30%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/14

Table 21. People diagnosed with HIV and AIDS within two months, and all people diagnosed with HIV infection by gender, place of birth, race/ethnicity, mode of exposure and age: Massachusetts,¹ 2010–2012²

	HIV and AIDS diagnosed within two months	All HIV infections diagnosed	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male	474	1,503	32%
Female	188	562	33%
Place of Birth:	N	N	%
US	346	1,229	28%
Puerto Rico/US Dependency ³	47	146	32%
Non-US	269	690	39%
Race/Ethnicity:	N	N	%
White (non-Hispanic)	224	777	29%
Black (non-Hispanic)	241	665	36%
Hispanic/Latino	169	533	32%
Asian/Pacific Islander	20	66	30%
Exposure Mode:	N	N	%
Male-to-male sex (MSM)	223	881	25%
Injection Drug Use (IDU)	59	172	34%
MSM/IDU	7	63	11%
Heterosexual Sex	78	228	34%
Other	2	13	15%
Total Undetermined	293	708	41%
• Presumed Heterosexual Sex ⁴	100	255	39%
• Undetermined ⁵	193	453	43%
Age:	N	N	%
Under 13	2	11	18%
13 to 19	8	57	14%
20 to 24	31	206	15%
25 to 29	46	234	20%
30 to 34	87	264	33%
35 to 39	75	278	27%
40 to 44	113	286	40%
45 to 49	106	298	36%
50 to 54	73	194	38%
55 to 59	53	123	43%
60+	68	114	60%
Total⁶	662	2,065	32%

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of people diagnosed with HIV infection from 2008–2010 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, 1% were born in Guam and 1% were born in an unknown dependency.

⁴ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁵ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁶ Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

How have patterns of AIDS diagnoses changed over time?

Table 22. Reported AIDS cases, by race/ethnicity and year of diagnosis: Massachusetts, selected years, 1985–2012¹

	White (NH)		Black (NH)		Hispanic/ Latino		API		Total ²
	N	%	N	%	N	%	N	%	N
1985	152	67%	51	23%	22	10%	1	<1%	226
1990	637	61%	232	22%	176	17%	4	<1%	1,052
1995	708	53%	309	23%	303	23%	7	1%	1,334
2003	248	40%	215	35%	150	24%	5	1%	620
2004	303	43%	209	30%	178	25%	6	1%	700
2005	256	37%	239	34%	183	26%	15	2%	694
2006	273	41%	202	30%	174	26%	13	2%	664
2007	220	39%	185	33%	147	26%	12	2%	566
2008	176	38%	165	35%	109	23%	14	3%	469
2009	179	39%	150	32%	126	27%	8	2%	464
2010	151	36%	145	34%	110	26%	13	3%	423
2011	142	34%	161	38%	99	24%	10	2%	420
2012	119	33%	120	33%	109	30%	10	3%	364

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity (NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 23. Reported AIDS cases by exposure mode and year of diagnosis: Massachusetts, selected years, 1985–2012¹

	MSM		IDU		MSM/ IDU		HTSX		Pres. HTSX ²		Undeter- mined ³		Total ⁴
	N	%	N	%	N	%	N	%	N	%	N	%	N
1985	141	62%	33	15%	11	5%	8	4%	7	3%	16	7%	226
1990	459	44%	339	32%	44	4%	74	7%	16	2%	65	6%	1,052
1995	419	31%	540	40%	62	5%	157	12%	32	2%	93	7%	1,334
2003	157	25%	176	28%	20	3%	89	14%	65	10%	106	17%	620
2004	187	27%	169	24%	23	3%	104	15%	65	9%	141	20%	700
2005	197	28%	184	27%	23	3%	96	14%	54	8%	136	20%	694
2006	224	34%	125	19%	22	3%	101	15%	81	12%	105	16%	664
2007	183	32%	115	20%	15	3%	82	14%	52	9%	110	19%	566
2008	156	33%	82	17%	19	4%	54	12%	50	11%	104	22%	469
2009	160	34%	83	18%	15	3%	59	13%	45	10%	97	21%	464
2010	132	31%	78	18%	12	3%	67	16%	49	12%	80	19%	423
2011	134	32%	59	14%	15	4%	52	12%	51	12%	107	25%	420
2012	113	31%	48	13%	15	4%	46	13%	49	13%	92	25%	364

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁴ Totals include pediatric and blood/blood products exposure modes

MSM = Male-to-Male Sex; IDU = Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Who is dying with HIV/AIDS and how has this changed over time?

The death data presented in this analysis includes all deaths among people reported with HIV infection and those with AIDS in Massachusetts to present a full description of trends in mortality among this population. This includes deaths from non-HIV/AIDS related causes such as drug overdoses, suicides, motor vehicle accidents and other causes. Therefore, the total number of annual deaths reported here will vary from the number of HIV/AIDS-related deaths reported in *Massachusetts Deaths* by the Massachusetts Department of Public Health, Registry of Vital Records and Statistics, Bureau of Health Information, Statistics, Research and Evaluation.

Table 24. Deaths among persons reported with HIV infection (non-AIDS) and AIDS by year of death: Massachusetts, selected years, 1985–2012¹

	HIV	AIDS	Total HIV + AIDS
Year of death	N	N	N
1985	-- ²	118	118
1990	-- ²	618	618
1995	-- ²	1,133	1,133
2003	68	323	391
2004	44	309	353
2005	54	278	332
2006	39	285	324
2007	44	242	286
2008	57	225	282
2009	51	237	288
2010	51	209	260
2011	36	176	212
2012	43	165	208

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² HIV infection reporting was implemented in 1999; therefore there are no data for deaths among people with HIV that did not progress to AIDS during this time period.

Data Source MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 25. Deaths among persons reported with HIV/AIDS by gender and year of death: Massachusetts¹, 2003–2012

Year of death	Male		Female		Total
	N	%	N	%	N
2003	257	66%	134	34%	391
2004	257	73%	96	27%	353
2005	233	70%	99	30%	332
2006	232	72%	92	28%	324
2007	201	70%	85	30%	286
2008	205	73%	77	27%	282
2009	196	68%	92	32%	288
2010	183	70%	77	30%	260
2011	153	72%	59	28%	212
2012	139	67%	69	33%	208

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 26. Deaths among persons reported with HIV/AIDS by race/ethnicity and year of death: Massachusetts¹, 2003–2012

	White (NH)		Black (NH)		Hispanic/Latino		API		Total ²
	N	%	N	%	N	%	N	%	N
2003	189	48%	110	28%	89	23%	1	<1%	391
2004	175	50%	87	25%	87	25%	4	1%	353
2005	153	46%	88	27%	88	27%	3	1%	332
2006	172	53%	77	24%	73	23%	2	1%	324
2007	146	51%	78	27%	61	21%	1	<1%	286
2008	138	49%	76	27%	62	22%	5	2%	282
2009	135	47%	74	26%	73	25%	6	2%	288
2010	121	47%	64	25%	68	26%	3	1%	260
2011	108	51%	57	27%	46	22%	0	0%	212
2012	103	50%	50	24%	50	24%	3	1%	208

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 27. Deaths among males reported with HIV/AIDS by race/ethnicity and year of death: Massachusetts¹, 2003–2012

	White (NH)		Black (NH)		Hispanic/Latino		API		Total ²
	N	%	N	%	N	%	N	%	N
2003	125	49%	67	26%	64	25%	1	<1%	257
2004	138	54%	56	22%	59	23%	4	2%	257
2005	112	48%	56	24%	62	27%	3	1%	233
2006	135	58%	46	20%	49	21%	2	1%	232
2007	116	58%	38	19%	46	23%	1	<1%	201
2008	108	53%	53	26%	38	19%	5	2%	205
2009	89	45%	53	27%	48	24%	6	3%	196
2010	91	50%	39	21%	49	27%	2	1%	183
2011	81	53%	39	25%	32	21%	0	0%	153
2012	75	54%	30	22%	30	22%	3	2%	139

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 28. Deaths among females reported with HIV/AIDS by race/ethnicity and year of death: Massachusetts¹, 2003–2012

	White (NH)		Black (NH)		Hispanic/Latina		API		Total ²
	N	%	N	%	N	%	N	%	N
2003	64	48%	43	32%	25	19%	0	0%	134
2004	37	39%	31	32%	28	29%	0	0%	96
2005	41	41%	32	32%	26	26%	0	0%	99
2006	37	40%	31	34%	24	26%	0	0%	92
2007	30	35%	40	47%	15	18%	0	0%	85
2008	30	39%	23	30%	24	31%	0	0%	77
2009	46	50%	21	23%	25	27%	0	0%	92
2010	30	39%	25	32%	19	25%	1	1%	77
2011	27	46%	18	31%	14	24%	0	0%	59
2012	28	41%	20	29%	20	29%	0	0%	69

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Totals include American Indian/Alaskan Native individuals and those of other or undetermined race/ethnicity

(NH) = Non-Hispanic, API = Asian/Pacific Islander

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 29. Deaths among persons reported with HIV/AIDS by exposure mode and year of death: Massachusetts¹, 2003–2012

	MSM		IDU		MSM/ IDU		HTSX		Pres. HTSX ²		Undeter- mined ³		Total ⁴
	N	%	N	%	N	%	N	%	N	%	N	%	N
2003	68	17%	196	50%	17	4%	47	12%	9	2%	46	12%	391
2004	68	19%	177	50%	17	5%	32	9%	12	3%	40	11%	353
2005	56	17%	171	52%	15	5%	39	12%	18	5%	31	9%	332
2006	63	19%	162	50%	19	6%	32	10%	16	5%	30	9%	324
2007	64	22%	125	44%	26	9%	28	10%	13	5%	25	9%	286
2008	57	20%	127	45%	15	5%	26	9%	12	4%	41	15%	282
2009	45	16%	144	50%	10	3%	36	13%	13	5%	39	14%	288
2010	58	22%	119	46%	14	5%	18	7%	10	4%	37	14%	260
2011	42	20%	89	42%	16	8%	22	10%	7	3%	33	16%	212
2012	46	22%	102	49%	8	4%	20	10%	9	4%	19	9%	208

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁴ Totals include pediatric and blood/blood products exposure modes

MSM = Male-to-Male Sex; IDU = Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/14

Table 30. Deaths among *males* reported with HIV/AIDS by exposure mode and year of death: Massachusetts¹, 2003–2012

	MSM		IDU		MSM/IDU		HTSX		Undetermined ²		Total ³
	N	%	N	%	N	%	N	%	N	%	N
2003	68	26%	119	46%	17	7%	19	7%	30	12%	257
2004	68	26%	115	45%	17	7%	17	7%	34	13%	257
2005	56	24%	118	51%	15	6%	14	6%	28	12%	233
2006	63	27%	108	47%	19	8%	11	5%	29	13%	232
2007	64	32%	78	39%	26	13%	9	4%	22	11%	201
2008	57	28%	83	40%	15	7%	13	6%	33	16%	205
2009	45	23%	94	48%	10	5%	13	7%	33	17%	196
2010	58	32%	73	40%	14	8%	5	3%	30	16%	183
2011	42	27%	55	36%	16	10%	10	7%	29	19%	153
2012	46	33%	62	45%	8	6%	4	3%	18	13%	139

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

³ Totals include pediatric and blood/blood products exposure modes.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14

Table 31. Deaths among *females* reported with HIV/AIDS by exposure mode and year of death: Massachusetts¹, 2003–2012

	IDU		HTSX		Pres. HTSX ²		Undetermined ³		Total ⁴
	N	%	N	%	N	%	N	%	N
2003	77	57%	28	21%	9	7%	16	12%	134
2004	62	65%	15	16%	12	13%	6	6%	96
2005	53	54%	25	25%	18	18%	3	3%	99
2006	54	59%	21	23%	16	17%	1	1%	92
2007	47	55%	19	22%	13	15%	3	4%	85
2008	44	57%	13	17%	12	16%	8	10%	77
2009	50	54%	23	25%	13	14%	6	7%	92
2010	46	60%	13	17%	10	13%	7	9%	77
2011	34	58%	12	20%	7	12%	4	7%	59
2012	40	58%	16	23%	9	13%	1	1%	69

¹ Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up.

⁴ Totals include pediatric and blood/blood products exposure modes

IDU = Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/14